

TSMC-03-431



February 9, 2004

To: Commissioner for Patents  
P.O.Box 1450  
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572  
28 Davis Avenue  
Poughkeepsie, N.Y. 12603

Subject: | Serial No. 10/718,881 11/21/03 |

Yi-Lung Cheng et al.

A METHOD OF FORMING A BORDERLESS  
CONTACT OPENING FEATURING A COMPOSITE  
TRI-LAYER ETCH STOP MATERIAL

#### INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation  
In An Application.

The following Patents and/or Publications are submitted to  
comply with the duty of disclosure under CFR 1.97-1.99 and  
37 CFR 1.56.

#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being  
deposited with the United States Postal Service as first class  
mail in an envelope addressed to: Commissioner for Patents,  
P.O. Box 1450, Alexandria, VA 22313-1450, on February , 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date Stephen B. Ackerman 2/12/04

The following four U.S. Patents describe methods of forming self-aligned contact and via openings using underlying etch stop layers:

- 1) U.S. Patent 5,972,722 to Visokay et al., "Adhesion Promoting Sacrificial Etch Stop Layer in Advanced Capacitor Structures."
- 2) U.S. Patent 5,596,230 to Hong, "Interconnection with Self-aligned Via Plug."
- 3) U.S. Patent 5,731,242 to Parat et al., "Self-aligned Contact Process in Semiconductor Fabrication."
- 4) U.S. Patent 6,080,674 to Wu et al., "Method for Forming Via Holes."

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen B. Ackerman". The signature is fluid and cursive, with the first name "Stephen" and last name "Ackerman" clearly distinguishable.

Stephen B. Ackerman,  
Reg. No. 37761

## INFORMATION DISCLOSURE CITATION

FEB 17 2004 P449 APPLICATION

(Use if prior art is not shown)

Document Number (Specimen)

TSMC-03-431

Application Number

10/718,881

Applicant

Yi-Lung Cheng et al.

Filing Date

11/21/03

Group Art Unit

## U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5972722	10/26/99	Visokay et al.	438	3	4/14/98
	5596230	1/21/97	Hong	257	758	1/4/96
	5731242	3/24/98	Parat et al.	438	586	11/14/95
	6080674	6/27/00	Wu et al.	438	692	1/6/99

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Portfolios Pages, Etc.)


EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.